Index of Authors

ACHENJANG, F. M. *see* HARRIS, E. J. 129–132

ÅKESSON, B. Effects of analogues of ethanolamine and choline on phospholipid metabolism in rat hepatocytes 401–408

AKHTAR, M. *see* KLAIPONGPAN, A. 271–275

ALDRIDGE, W. N., STREET, B. W. & SKILLETER, D. N. Oxidative phosphorylation. Halide-dependent and halide-independent effects of triorganotin and triorganolead compounds on mitochondrial functions 353–364

AL-TIMIMI, D. J. & DORMANDY, T. L. The inhibition of lipid autoxidation by human caeruloplasmin 283–288

AMENTA, J. S., SARGUS, M. J. & BACCINO, F. M. Effect of microtubular or translational inhibitors on general cell protein degradation. Evidence for a dual catabolic pathway 223–227

ANDREW, P. W. *see* CAMMACK, R. 205–209

ARCE, A. *see* LANDA, C. A. 325–332

BACCINO, F. M. *see* AMENTA, J. S. 223–227

BALDY, W. J. *see* LOTLIKAR, P. D. 571–574

BARFORD, P. A., OLAVESEN, A. H., CURTIS, C. G. & POWELL, G. M. Biliary excretion of some anionic derivatives of diethylstilboestrol and phenolphthalein in the guinea pig 373–377

BARGERON, C. P. *see* CAMMACK, R. 205–209

BARUA, A. B., DAS, R. C. & VERMA, K. Occurrence of 3-hydroxyretinol in the freshwater fish *Bagarius bagarius* and *Wallago attu*. Isolation and synthesis 557–564

BEARPARK, T. & STIRLING, J. L. Clearance of human *N*-acetyl-β-hexosaminidases from rat circulation 435–439

BENNETT, H. P. J., HUDSON, A. M., MCMARTIN, C. & PURDON, G. E. Use of octadecasilyl-silica for the extraction and purification of peptides in biological samples. Application to the identification of circulating metabolites of corticotropin-(1–24)-tetracosapeptide and somatostatin *in vivo* 9–13

BLOXHAM, D. P. *see* KLAIPONGPAN, A. 271–275

BOLTON, P. & HARWOOD, J. L. Fatty acid biosynthesis by a particulate preparation from germinating pea 261–269

BOWLEY, M. *see* WHITING, P. H. 147–153

BRINDLEY, D. N. *see* WHITING, P. H. 147–153

BROWNSEY, R. W., HUGHES, W. A., DENTON, R. M. & MAYER, R. J. Demonstration of the phosphorylation of acetyl-coenzyme A carboxylase within intact rat epididymal fat-cells 441–445

BRUCE-ROBERTSON, A. *see* JEEJEEBHOY, K. N. 347–352

BURK, R. F. & CORREIA, M. A. Accelerated hepatic haem catabolism in the selenium-deficient rat 105–111

BURTON, K. Transport of adenine, hypoxanthine and uracil into *Escherichia coli* 195–204

CALDARERA, C. M. *see* CASTI, A. 333–340; CORTI, A. 341–345

CAMMACK, R., RAO, K. K., BARGERON, C. P., HUTSON, K. G., ANDREW, P. W. & ROGERS, L. J. Midpoint redox potentials of plant and algal ferredoxins 205–209

CAMMARANO, P. *see* SACCHI, A. 245–259

CAMPBELL, I. L. & TAYLOR, K. W. A species difference in nucleoside phosphorylase activity and inosine-stimulated insulin secretion in isolated islets of Langerhans 591–593

CAPUTTO, R. *see* LANDA, C. A. 325–332

CASTI, A., CORTI, A., REALI, N., MEZZETTI, G., ORLANDINI, G. & CALDARERA, C. M. Modifications of major aspects of myocardial ribonucleic acid metabolism as a response to noradrenaline. Behaviour of polyadenylate polymerase and ribonucleic acid polymerase, acetylation of histones and rate of synthesis of polyamines 333–340

CASTI, A. *see also* CORTI, A. 341–345

CHAGLA, A. H. *see* EDWARDS, S. W. 113–121

CH'IH, J. J., PIKE, L. M. & DEVLIN, T. M. Regulation of mammalian protein synthesis *in vivo*. Stimulated liver ribonucleic acid synthesis *in vivo* after cycloheximide treatment 57–63

CLARK, J. B. *see* DENNIS, S. C. 521–527

CLAYCOMB, W. C. Cardiac-muscle hypertrophy. Differentiation and growth of the heart cell during development 599–601

COOKE, B. A., LINDH, M. L. & JANSZEN, F. H. A. Effect of lutropin on phosphorylation of endogenous proteins in testis Leydig cells. Correlation with testosterone production 43–48

COOPER, D. M. F. *see* GLYNN, P. 277–282

COOPER, P. H. & STANWORTH, D. R. Effect of removal of calcium-activated adenosine triphosphatase from rat mast cells by treatment with sodium glycocholate 583–585

CORREIA, M. A. *see* BURK, R. F. 105–111

CORTI, A., CASTI, A., MEZZETTI, G., REALI, N., ORLANDINI, G. & CALDARERA, C. M. Modifications of major aspects of myocardial ribonucleic acid metabolism as a response to noradrenaline. Action of the hormone on cytoplasmic processing of ribonucleic acid after reserpine treatment 341–345

CORTI, A. *see also* CASTI, A. 333–340

CULVENOR, J. G. & EVANS, W. H. Preparation of hepatic gap (communicating) junctions. Identification of the constituent polypeptide subunits 475–481

CURRIE, A. R. *see* WADDELL, A. W. 323–324

CURTIS, C. G. *see* BARFORD, P. A. 373–377

DAS, R. C. *see* BARUA, A. B. 557–564

DEAN, R. T. Lysosomes and membrane recycling. A hypothesis 603–605

DE KRETSER, T. A. & LIVETT, B. G. Skeletal-muscle sarcolemma from normal and dystrophic mice. Isolation, characterization and lipid composition 229–237

DE MATTEIS, F., GIBBS, A. H. & UNSELD, A. Loss of haem from cytochrome *P*-450 caused by lipid peroxidation and 2-allyl-2-isopropylacetamide. An abnormal pathway not involving production of carbon monoxide 417–422

DENNIS, S. C. & CLARK, J. B. The pathway of glutamate metabolism in rat brain mitochondria 521–527

DENTON, R. M. *see* BROWNSEY, R. W. 441–445

DESNICK, R. J. *see* FIDDLER, M. B. 141–145
DEVLIN, T. M. *see* CH'IH, J. J. 57–63
DORMANDY, T. L. *see* AL-TIMIMI, D. J. 283–288
DRABIKOWSKA, A. K. The respiratory chain of a newly isolated *Methylomonas* P11 171–178
DUTTON, G. J. *see* WISHART, G. J. 507–511
DWYER, E. N. *see* LOTLIKAR, P. D. 571–574

EDDY, A. A. *see* KIMMICH, G. A. 81–90
EDWARDS, S. W., CHAGLA, A. H., GRIFFITHS, A. J. & LLOYD, D. The cytochromes of *Acanthamoeba castellanii* 113–121
ELORANTA, T. O. & RAINA, A. M. *S*-Adenosylmethionine metabolism and its relation to polyamine synthesis in rat liver. Effect of nutritional state, adrenal function, some drugs and partial hepatectomy 179–185
ENGLAND, P. J. Phosphorylation of the inhibitory subunit of troponin in perfused hearts of mice deficient in phosphorylase kinase. Evidence for the phosphorylation of troponin by adenosine 3′:5′-phosphate-dependent protein kinase *in vivo* 307–310
ETHERINGTON, D. J. Stability of rat skin collagen during recovery from under-nutrition 579–581
EVANS, W. H. *see* CULVENOR, J. G. 475–481

FARWELL, D. C., MIGUEZ, J. B. & HERBST, E. J. Ornithine decarboxylase and polyamines in liver and kidneys of rats on cyclical regimen of protein-free and protein-containing diets. Relationship to deoxyribonucleic acid synthesis in liver 49–56
FERGUSON, S. J. & SORGATO, M. C. The phosphorylation potential generated by respiring bovine heart submitochondrial particles 299–303
FERRINI, U. *see* SACCHI, A. 245–259
FIDDLER, M. B., HUDSON, L. D. S. & DESNICK, R. J. Immunological evaluation of repeated administration of erythrocyte-entrapped protein to C3H/HeJ mice 141–145
FAUST, R. G. *see* KINNE, R. 311–314
FLORÉN, C.-H. & NILSSON, Å. Binding, interiorization and degradation of cholesteryl ester-labelled chylomicron-remnant particles by rat hepatocyte monolayers 483–494

GIBBS, A. H. *see* DE MATTEIS, F. 417–422
GIBSON, K. D. & SEGEN, B. J. The mode of action of 4-methylumbelliferyl β-D-xyloside on the synthesis of chondroitin sulphate in embryonic-chicken sternum 65–79
GIDDENS, R. A. *see* HENDERSON, P. J. F. 15–22
GLYNN, P., COOPER, D. M. F. & SCHULSTER, D. Modulation of the response of bovine adrenocortical adenylate cyclase to corticotropin 277–282
GRANT, M. E. *see* SEAR, C. H. J. 91–103
GREEN, C. *see* KIRBY, C. J. 575–577
GRIFFITHS, A. J. *see* EDWARDS, S. W. 113–121
GROLLÉ-HEY, A. H. *see* GROOTEGOED, J. A. 23–31
GROOTEGOED, J. A., GROLLÉ-HEY, A. H., ROMMERTS, F. F. G. & VAN DER MOLEN, H. J. Ribonucleic acid synthesis *in vitro* in primary spermatocytes isolated from rat testis 23–31
GUHA, S. K. *see* PIIK, K. 379–385
GUNDERSON, T. J. *see* MALKINSON, A. M. 319–321

HAASE, W. *see* LÜCKE, H. 529–532
HALLINAN, T. *see* WILKINSON, J. 125–127
HARRIS, E. J. The uptake and release of calcium by heart mitochondria 447–456
HARRIS, E. J. & ACHENJANG, F. M. Energy-dependent uptake of arsenite by rat liver mitochondria 129–132
HARWOOD, J. L. *see* BOLTON, P. 261–269
HAWTHORNE, J. N. *see* WHITING, P. H. 147–153
HENDERSON, P. J. F. & GIDDENS, R. A. 2-Deoxy-D-galactose, a substrate for the galactose-transport system of *Escherichia coli* 15–22
HERBST, E. J. *see* FARWELL, D. C. 49–56
HO, J. *see* JEEJEEBHOY, K. N. 347–352
HOLLOSZY, J. O. *see* RENNIE, M. J. 161–170
HUDSON, A. M. *see* BENNETT, H. P. J. 9–13
HUDSON, L. D. S. *see* FIDDLER, M. B. 141–145
HUGHES, W. A. *see* BROWNSEY, R. W. 441–445
HUTSON, K. G. *see* CAMMACK, R. 205–209

JACKSON, D. S. *see* SEAR, C. H. J. 91–103
JÄNNE, J. *see* PIIK, K. 379–385
JANSZEN, F. H. A. *see* COOKE, B. A. 43–48
JEEJEEBHOY, J. *see* JEEJEEBHOY, K. N. 347–352
JEEJEEBHOY, K. N., HO, J., MEHRA, R., JEEJEEBHOY, J. & BRUCE-ROBERTSON, A. Effects of hormones on the synthesis of α_1 (acute-phase) glycoprotein in isolated rat hepatocytes 347–352
JOHNSON, P. & REES, H. H. The mechanism of C-20 hydroxylation of α-ecdysone in the desert locust, *Schistocerca gregaria* 513–520
JUND, R. *see* WALDRON, C. 409–415

KEIR, H. M. *see* MELVIN, W. T. 595–597
KELLY, D. P. *see* TUDROSZEN, N. J. 315–318
KHANDELWAL, R. L., ZINMAN, S. M. & ZEBROWSKI, E. J. The effect of streptozotocin-induced diabetes and of insulin supplementation on glycogen metabolism in rat liver 541–548
KIMMICH, G. A., PHILO, R. D. & EDDY, A. A. The effects of ionophores on the fluorescence of the cation 3,3′-dipropyloxadicarbocyanine in the presence of pigeon erythrocytes, erythrocyte 'ghosts' or liposomes 81–90
KINNE, R. & FAUST, R. G. Incorporation of D-glucose,-L-alanine- and phosphate-transport systems from rat renal brush-border membranes into liposomes 311–314
KIRBY, C. J. & GREEN, C. Transmembrane migration ('flip-flop') of cholesterol in erythrocyte membranes 575–577
KISS, Z. Role of a specific choline pool in sphingomyelin synthesis in rat heart 387–391
KLAIPONGPAN, A., BLOXHAM, D. P. & AKHTAR, M. Enhancement of the anti-anabolic response to adenosine 3′:5′-cyclic monophosphate during development. The inhibition of hepatic protein synthesis 271–275
KUHN, N. J. & WHITE, A. The role of nucleoside diphosphatase in a uridine nucleotide cycle associated with lactose synthesis in rat mammary-gland Golgi apparatus 423–433

LACROUTE, F. *see* WALDRON, C. 409–415
LAGARDE, A. Evidence for an electrogenic 3-deoxy-2-oxo-D-gluconate-proton co-transport driven by the proton-motive force in *Escherichia coli* K12 211–221

LANDA, C. A., MACCIONI, H. J. F., ARCE, A. & CAPUTTO, R. The biosynthesis of brain gangliosides. Separation of membranes with different ratios of ganglioside-sialylating activity to gangliosides 325–332
LEE, M. *see* SMITH, J. E. 587–589
LINDH, M. L. *see* COOKE, B. A. 43–48
LIVETT, B. G. *see* DE KRETSER, T. A. 229–237
LLOYD, C. W. *see* THOM, D. 187–194
LLOYD, D. *see* EDWARDS, S. W. 113–121
LLOYD, J. B. *see* PRATTEN, M. K. 365–372; ROBERTS, A. V. S. 239–244
LONDEI, P. *see* SACCHI, A. 245–259
LOTLIKAR, P. D., DWYER, E. N., BALDY, W. J. & NYCE, J. Phospholipid requirement for 2-acetamidofluorene *N*- and ring-hydroxylation by hamster liver microsomal cytochrome *P*-450 enzyme system 571–574
LÜCKE, H., HAASE, W. & MURER, H. Amino acid transport in brush-border membrane vesicles isolated from human small intestine 529–532
LYAKHOVICH, V., MISHIN, V. & POKROVSKY, A. Relationship between the reduction of oxygen, artificial acceptors and cytochrome *P*-450 by NADPH cytochrome *c* reductase 133–139

MACCIONI, H. J. F. *see* LANDA, C. A. 325–332
MACDONALD, D. W. R. & SAGGERSON, E. D. Hormonal control of gluconeogenesis in tubule fragments from renal cortex of fed rats. Effects of α-adrenergic stimuli, glucagon, theophylline and papaverine 33–42
MAHAFFEY, E. *see* SMITH, J. E. 587–589
MALKINSON, A. M., GUNDERSON, T. J. & MCSWIGAN, C. E. Protein phosphorylation in normal and neoplastic development. Cyclic AMP-dependent protein kinase activity in urethane-induced pulmonary tumours 319–321
MARALDI, N. *see* SACCHI, A. 245–259
MAYER, R. J. *see* BROWNSEY, R. W. 441–445
MCMARTIN, C. *see* BENNETT, H. P. J. 9–13
MCSWIGAN, C. E. *see* MALKINSON, A. M. 319–321
MEHRA, R. *see* JEEJEEBHOY, K. N. 347–352
MELVIN, W. T. & KEIR, H. M. Affinity chromatography of thiol-containing purines and ribonucleic acid 595–597
MEZZETTI, G. *see* CASTI, A. 333–340; CORTI, A. 341–345
MIGUEZ, J. B. *see* FARWELL, D. C. 49–56
MILLER, J. C. A study of the kinetics of the muscarinic effect on phosphatidylinositol and phosphatidic acid metabolism in rat brain synaptosomes 549–555
MILLIS, N. F. *see* TUDROSZEN, N. J. 315–318
MISHIN, V. *see* LYAKHOVICH, V. 133–139
MOYNIHAN, J. B. Carbonic anhydrase activity in mammalian skeletal and cardiac muscle 567–569
MURER, H. *see* LÜCKE, H. 529–532

NILSSON, Å. *see* FLORÉN, C.-H. 483–494
NYCE, J. *see* LOTLIKAR, P. D. 571–574

OLAVESEN, A. H. *see* BARFORD, P. A. 373–377
ORLANDINI, G. *see* CASTI, A. 333–340; CORTI, A. 341–345

PHILLIPS, J. H. Passive ion permeability of the chromaffin-granule membrane 289–297
PHILO, R. D. *see* KIMMICH, G. A. 81–90
PIIK, K., RAJAMÄKI, P., GUHA, S. K. & JÄNNE, J. Regulation of L-ornithine decarboxylase and *S*-adenosyl-L-methionine decarboxylase in rat ventral prostate and seminal vesicle 379–385
PIKE, L. M. *see* CH'IH, J. J. 57–63
POGSON, C. I. *see* SMITH, S. A. 495–506
POKROVSKY, A. *see* LYAKHOVICH, V. 133–139
POWELL, A. J. *see* THOM, D. 187–194
POWELL, G. M. *see* BARFORD, P. A. 373–377
PRATTEN, M. K., WILLIAMS, K. E. & LLOYD, J. B. A quantitative study of pinocytosis and intracellular proteolysis in rat peritoneal macrophages 365–372
PRITCHARD, P. H. *see* WHITING, P. H. 147–153
PURDON, G. E. *see* BENNETT, H. P. J. 9–13

RABINOWITZ, J. L. & TAVARES, C. J. Iodinated phospholipids and the iodination of proteins of dog thyroid *in vitro* 155–160
RAINA, A. M. *see* ELORANTA, T. O. 179–185
RAJAMÄKI, P. *see* PIIK, K. 379–385
RAMSEY, J. C. & STEELE, W. J. Differences in size, structure and function of free and membrane-bound polyribosomes of rat liver. Evidence for a single class of membrane-bound polyribosomes 1–8
RAO, K. K. *see* CAMMACK, R. 205–209
REALI, N. *see* CASTI, A. 333–340; CORTI, A. 341–345
REES, D. A. *see* THOM, D. 187–194
REES, H. H. *see* JOHNSON, P. 513–520
RENNIE, M. J. & HOLLOSZY, J. O. Inhibition of glucose uptake and glycogenolysis by availability of oleate in well-oxygenated perfused skeletal muscle 161–170
RÍOS DE MOLINA, M. D. C. *see* SAN MARTÍN DE VIALE, L. C. 393–400
ROBERTS, A. V. S., WILLIAMS, K. E. & LLOYD, J. B. The pinocytosis of ^{125}I-labelled poly(vinylpyrrolidone), [^{14}C]sucrose and colloidal [^{198}Au]gold by rat yolk sac cultured *in vitro* 239–244
ROBINSON, A. M. & WILLIAMSON, D. H. Control of glucose metabolism in isolated acini of the lactating mammary gland of the rat. The ability of glycerol to mimic some of the effects of insulin 465–474
ROGERS, L. J. *see* CAMMACK, R. 205–209
ROMMERTS, F. F. G. *see* GROOTEGOED, J. A. 23–31

SACCHI, A., FERRINI, U., LONDEI, P., CAMMARANO, P. & MARALDI, N. Mitochondrial and cytoplasmic ribosomes from mammalian tissues. Further characterization of ribosomal subunits and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of ribonucleoprotein particles 245–259
SAGGERSON, E. D. *see* MACDONALD, D. W. R. 33–42
SAN MARTÍN DE VIALE, L. C., RÍOS DE MOLINA, M. D. C., WAINSTOK DE CALMANOVICI, R. & TOMIO, J. M. Porphyrins and porphyrinogen carboxy-lyase in hexachlorobenzene-induced porphyria 393–400
SARGUS, M. J. *see* AMENTA, J. S. 223–227
SCHULSTER, D. *see* GLYNN, P. 277–282
SEAR, C. H. J., GRANT, M. E. & JACKSON, D. S. Biosynthesis and release of glycoproteins by human skin fibroblasts in culture 91–103
SEGEN, B. J. *see* GIBSON, K. D. 65–79

SHETERLINE, P. Phosphorylation of pig brain microtubule proteins. General properties and partial characterization of endogenous substrate and cyclic AMP-dependent protein kinase 533–539
SKILLETER, D. N. *see* ALDRIDGE, W. N. 353–364
SMITH, J. E., MAHAFFEY, E. & LEE, M. Effect of Methylene Blue on glutamate and reduced glutathione of rabbit erythrocytes 587–589
SMITH, S. A. & POGSON, C. I. Tryptophan and the control of plasma glucose concentrations in the rat 495–506
SORGATO, M. C. *see* FERGUSON, S. J. 299–303
STANWORTH, D. R. *see* COOPER, P. H. 583–585
STEELE, W. J. *see* RAMSEY, J. C. 1–8
STIRLING, J. L. *see* BEARPARK, T. 435–439
STREET, B. W. *see* ALDRIDGE, W. N. 353–364
STURTON, R. G. *see* WHITING, P. H. 147–153

TAVARES, C. J. *see* RABINOWITZ, J. L. 155–160
TAYLOR, K. W. *see* CAMPBELL, I. L. 591–593
THOM, D., POWELL, A. J., LLOYD, C. W. & REES, D. A. Rapid isolation of plasma membranes in high yield from cultured fibroblasts 187–194
TOMIO, J. M. *see* SAN MARTÍN DE VIALE, L. C. 393–400
TUDROSZEN, N. J., KELLY, D. P. & MILLIS, N. F. α-Pinene metabolism by *Pseudomonas putida* 315–318

UNSELD, A. *see* DE MATTEIS, F. 417–422

VAN DER MOLEN, H. J. *see* GROOTEGOED, J. A. 23–31
VAN HEYNINGEN, S. Activity of covalently cross-linked cholera toxin with the adenylate cyclase of intact and lysed pigeon erythrocytes 457–463
VERMA, K. *see* BARUA, A. B. 557–564

WADDELL, A. W. & CURRIE, A. R. A comparison of the effects of prednisolone and methylprednisolone on human lymphoblastoid cells 323–324
WAINSTOK DE CALMANOVICI, R. *see* SAN MARTÍN DE VIALE, L. C. 393–400
WALDRON, C., JUND, R. & LACROUTE, F. Evidence for a high proportion of inactive ribosomes in slow-growing yeast cells 409–415
WHITE, A. *see* KUHN, N. J. 423–433
WHITING, P. H., BOWLEY, M., STURTON, R. G., PRITCHARD, P. H., BRINDLEY, D. N. & HAWTHORNE, J. N. The effect of chronic diabetes, induced by streptozotocin, on the activities of some enzymes of glycerolipid synthesis in rat liver 147–153
WILKINSON, J. & HALLINAN, T. Stimulation of steroid glucuronidation by uridine diphosphate *N*-acetylglucosamine and by microsomal disruption 125–127
WILLIAMS, K. E. *see* PRATTEN, M. K. 365–372; ROBERTS, A. V. S. 239–244
WILLIAMSON, D. H. *see* ROBINSON, A. M. 465–474
WISHART, G. J. & DUTTON, G. J. Regulation of onset of development of UDP-glucuronosyltransferase activity towards *o*-aminophenol by glucocorticoids in late-foetal rat liver *in utero* 507–511

ZEBROWSKI, E. J. *see* KHANDELWAL, R. L. 541–548
ZINMAN, S. M. *see* KHANDELWAL, R. L. 541–548

Index of Subjects

Acanthamoeba castellanii, physicochemical properties of cytochromes from (Edwards, S. W., Chagla, A. H., Griffiths, A. J. & Lloyd, D.) 113–121

2-Acetamidofluorene, requirement for phospholipid for the *N*- and ring-hydroxylation of, by hamster liver microsomal cytochrome *P*-450 enzyme system (Lotlikar, P. D., Dwyer, E. N., Baldy, W. J. & Nyce, J.) 571–574

Acetyl-coenzyme A carboxylase, demonstration of the phosphorylation of, within intact rat epididymal fat-cells (Brownsey, R. W., Hughes, W. A., Denton, R. M. & Mayer, R. J.) 441–445

N-Acetyl-β-hexosaminidases, human, infused, clearance of, from rat blood (Bearpark T. & Stirling, J. L.) 435–439

Acinar cells, mammary-gland, rat, lactating, isolated, ability of glycerol to mimic some of the effects of insulin on the metabolism of glucose in (Robinson, A. M. & Williamson, D. H.) 465–474

Acute-phase glycoprotein, *see* α_1-Glycoprotein

Adenine, transport of hypoxanthine, uracil and, into *Escherichia coli* (Burton, K.) 195–204

Adenosine 3′:5′-cyclic monophosphate, age-dependent inhibition by, of the biosynthesis of protein in rat liver during postnatal development (Klaipongpan, A., Bloxham, D. P. & Akhtar, M.) 271–275

Adenosine triphosphatase, calcium ion-activated, effect of removal by treatment with sodium glycocholate of, from the surface of rat mast cells (Cooper, P. H. & Stanworth, D. R.) 583–585

S-Adenosyl-L-methionine decarboxylase, regulation of the activities of L-ornithine decarboxylase and, in rat ventral prostate gland and seminal vesicle (Piik, K., Rajamäki, P., Guha, S. K. & Jänne, J.) 379–385

S-Adenosylmethionine, effects of nutritional state, adrenal-gland function, administration of some drugs and partial hepatectomy on the metabolism of, and the biosynthesis of polyamines in rat liver (Eloranta, T. O. & Raina, A. M.) 179–185

Adenylate cyclase, activity of covalently cross-linked cholera toxin with, of intact and lysed pigeon erythrocytes (van Heyningen, S.) 457–463

Adenylate cyclase, plasma-membrane, adrenal-gland-cortex, ox, modulation of the response to corticotropin-(1–24)-tetracosapeptide of the activity of (Glynn, P., Cooper, D. M. F. & Schulster, D.) 277–282

Adipocytes, epididymal, rat, intact, demonstration of the phosphorylation of acetyl-coenzyme A carboxylase within (Brownsey, R. W., Hughes, W. A., Denton, R. M. & Mayer, R. J.) 441–445

Adrenalectomy, effects of, and other treatments on the metabolism of *S*-adenosylmethionine and the biosynthesis of polyamines in rat liver (Eloranta, T. O. & Raina, A. M.) 179–185

Adrenal-gland cortex, ox, modulation of the response to corticotropin-(1–24)-tetracosapeptide of the activity of adenylate cyclase of plasma membrane from (Glynn, P., Cooper, D. M. F. & Schulster, D.) 277–282

Adrenal-gland medulla, ox, passive permeability to anions of the membrane of chromaffin granules from (Phillips, J. H.) 289–297

α-Adrenergic agonists, effects of glucagon, theophylline, papaverine and, on gluconeogenesis in tubule fragments from kidney cortex of fed rats (MacDonald, D. W. R. & Saggerson, E. D.) 33–42

Adrenocorticotropin, *see* Corticotropin

L-Alanine, incorporation into liposomes of rat kidney brush-border membrane transport systems for D-glucose, inorganic phosphate and (Kinne, R. & Faust, R. G.) 311–314

Alanine, transport of phenylalanine and, by vesicles of human small-intestinal brush-border membrane (Lücke, H., Haase, W. & Murer, H.) 529–532

Albumin, pinocytosed, quantitative study of pinocytosis of colloidal gold, sucrose and poly(vinylpyrrolidone) and of intracellular proteolysis of, by rat peritoneal mononuclear leucocytes (Pratten, M. K., Williams, K. E. & Lloyd, J. B.) 365–372

Albumin, plasma, effects of hormones on the biosynthesis of α_1-glycoprotein and, in isolated rat hepatocytes (Jeejeebhoy, K. N., Ho, J., Mehra, R., Jeejeebhoy, J. & Bruce-Robertson, A.) 347–352

2-Allyl-2-isopropylacetamide, evidence for an abnormal pathway not involving production of carbon monoxide in the loss of haem from cytochrome *P*-450 caused by lipid peroxidation and, in rat liver microsomal-fraction (De Matteis, F., Gibbs, A. H. & Unseld, A.) 417–422

Amino acids, transport of, by vesicles of human small-intestinal brush-border membrane (Lücke, H., Haase, W. & Murer, H.) 529–532

o-Aminophenol, regulation by glucocorticoids of the induction of the activity of uridine diphosphate glucuronosyltransferase towards, in rat liver during late-foetal development (Wishart, G. J. & Dutton, G. J.) 507–511

Anions, passive permeability to, of ox adrenal-gland-medulla chromaffin-granule membrane (Phillips, J. H.) 289–297

Arsenite, energy-dependent uptake of, by rat liver mitochondria (Harris, E. J. & Achenjang, F. M.) 129–132

Bagarius bagarius, occurrence of 3-hydroxyretinol in *Wallago attu* and (Barua, A. B., Das, R. C. & Verma, K.) 557–564

Bile, excretion of anionic conjugates of diethylstilboestrol and phenolphthalein in, in the guinea pig (Barford, P. A., Olavesen, A. H., Curtis, C. G. & Powell, G. M.) 373–377

Blood plasma, rat, effect of tryptophan on the control of the concentration of glucose in (Smith, S. A. & Pogson, C. I.) 495–506

Blood, rat, clearance of infused human *N*-acetyl-β-hexosaminidases from (Bearpark, T. & Stirling, J. L.) 435–439

Blood, rat, identification of metabolites of corticotropin-(1–24)-tetracosapeptide and somatostatin in, *in vivo* (Bennett, H. P. J., Hudson, A. M., McMartin, C. & Purdon, G. E.) 9–13

Brain, ox, inhibition by human caeruloplasmin of the autoxidation of lipids in homogenate of (Al-Timimi, D. J. & Dormandy, T. L.) 283–288
Brain, pig, general properties and partial characterization of microtubule proteins from, and their phosphorylation by adenosine 3′:5′-cyclic monophosphate-dependent protein kinase (Sheterline, P.) 533–539
Brain, rat, kinetics of the muscarinic effect on the metabolism of phosphatidylinositol and phosphatidate in synaptosomes from (Miller, J. C.) 549–555
Brain, rat, pathway for the metabolism of glutamate in mitochondria from (Dennis, S. C. & Clark, J. B.) 521–527
Brain, rat, separation of membranes from, with different ratios of ganglioside-sialylating activity to ganglioside concentration (Landa, C. A., Maccioni, H. J. F., Arce, A. & Caputto, R.) 325–332
Brush border, kidney, rat, incorporation into liposomes of transport systems for D-glucose, L-alanine and inorganic phosphate from membrane of (Kinne, R. & Faust, R. G.) 311–314
Brush border, small-intestinal, human, transport of amino acids by vesicles of the membrane of (Lücke, H., Haase, W. & Murer, H.) 529–532

Caeruloplasmin, human, inhibition by, of the autoxidation of lipids in ox brain homogenate (Al-Timimi, D. J. & Dormandy, T. L.) 283–288
Calcium ions, uptake and release of, by rat heart mitochondria (Harris, E. J.) 447–456
Carbon monoxide, evidence for an abnormal pathway not involving production of, in the loss of haem from cytochrome *P*-450 caused by lipid peroxidation and 2-allyl-2-isopropylacetamide in rat liver microsomal fraction (De Matteis, F., Gibbs, A. H. & Unseld, A.) 417–422
Carbonic anhydrase, activity of, in rat skeletal muscle and heart muscle (Moynihan, J. B.) 567–569
Cartilage, sternum, chick-embryo, mode of action of 4-methylumbelliferyl β-D-xyloside on the biosynthesis of chondroitin sulphate of (Gibson, K. D. & Segen, B. J.) 65–79
Catecholamine-storage granules, adrenal-gland-medulla, ox, passive permeability to anions of the membrane of (Phillips, J. H.) 289–297
Cells, lymphoblastoid, human, comparison of the effects of prednisolone and methylprednisolone on (Waddell, A. W. & Currie, A. R.) 323–324
Chick embryo, mode of action of 4-methylumbelliferyl β-D-xyloside on the biosynthesis of chondroitin sulphate in sternum from (Gibson, K. D. & Segen, B. J.) 65–79
Cholera toxin, covalently cross-linked, activity of, with the adenylate cyclase of intact and lysed pigeon erythrocytes (van Heyningen, S.) 457–463
Cholesterol, transmembrane migration ('flip-flop') of, in rat erythrocyte membrane (Kirby, C. J. & Green, C.) 575–577
Cholesteryl ester, binding, interiorization and degradation of chylomicron-remnant particles labelled with, by rat hepatocyte monolayers (Florén, C.-H. & Nilsson, Å.) 483–494
Choline, effects of analogues of ethanolamine and, on the metabolism of phospholipids in isolated rat hepatocytes (Åkesson, B.) 401–408
Choline, role of a specific pool of, in the biosynthesis of sphingomyelin in rat heart (Kiss, Z.) 387–391
Chondroitin sulphate, mode of action of 4-methylumbelliferyl β-D-xyloside on the biosynthesis of, in chick-embryo sternum (Gibson, K. D. & Segen, B. J.) 65–79
Chromaffin granules, adrenal-gland-medulla, ox, passive permeability to anions of the membrane of (Phillips, J. H.) 289–297
Chylomicron-remnant particles, cholesteryl ester-labelled, binding, interiorization and degradation of, by rat hepatocyte monolayers (Florén, C.-H. & Nilsson, Å.) 483–494
Collagen, skin, rat, stability of, during recovery of the animal from under-nutrition (Etherington, D. J.) 579–581
Corticotropin-(1–24)-tetracosapeptide, identification of metabolites of somatostatin and, in rat blood *in vivo* (Bennett, H. P. J., Hudson, A. M., McMartin, C. & Purdon, G. E.) 9–13
Corticotropin-(1–24)-tetracosapeptide, modulation of the response to, of the activity of adenylate cyclase of ox adrenal-gland-cortex plasma membrane (Glynn, P., Cooper, D. M. F. & Schulster, D.) 277–282
Cortisol, effects of, and other hormones on the biosynthesis of α_1-glycoprotein and plasma albumin in isolated rat hepatocytes (Jeejeebhoy, K. N., Ho, J., Mehra, R., Jeejeebhoy, J. & Bruce-Robertson, A.) 347–352
Cyclic adenosine 3′:5′-monophosphate, *see* Adenosine 3′:5′-cyclic monophosphate
Cycloheximide, stimulation of the biosynthesis of ribonucleic acid in rat liver *in vivo* after the administration of non-lethal doses of (Ch'ih, J. J., Pike, L. M. & Devlin, T. M.) 57–63
Cytochrome *P*-450, dependence on, of the system catalysing the 20-hydroxylation of α-ecdysone in the locust (Johnson, P. & Rees, H. H.) 513–520
Cytochrome *P*-450, evidence for an abnormal pathway not involving production of carbon monoxide in the loss of haem from, caused by lipid peroxidation and 2-allyl-2-isopropylacetamide in rat liver microsomal fraction (De Matteis, F., Gibbs, A. H. & Unseld, A.) 417–422
Cytochrome *P*-450, microsomal, liver, rat, decreased concentration of, in selenium-deficient animals (Burk, R. F. & Correia, M. A.) 105–111
Cytochrome *P*-450, relationship between the reduction of oxygen, artificial acceptors and, by rat liver microsomal reduced nicotinamide–adenine dinucleotide phosphate–cytochrome *c* reductase (Lyakhovich, V., Mishin, V. & Pokrovsky, A.) 133–139
Cytochrome *P*-450, requirement for phospholipid for the *N*- and ring-hydroxylation of 2-acetamidofluorene by hamster liver microsomal enzyme system dependent on (Lotlikar, P. D., Dwyer, E. N., Baldy, W. J. & Nyce, J.) 571–574
Cytochromes, *Acanthamoeba castellanii*, physicochemical properties of (Edwards, S. W., Chagla, A. H., Griffiths, A. J. & Lloyd, D.) 113–121

Cytoplasm, liver, rat, further characterization of ribosomal subunits and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of ribonucleoprotein particles from ribosomes of, and mitochondria (Sacchi, A., Ferrini, U., Londei, P., Cammarano, P. & Maraldi, N.) 245–259
Cytosol, lung and lung-tumour, mouse, activities of adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in (Malkinson, A. M., Gunderson, T. J. & McSwigan, C. E.) 319–321

2-Deoxy-D-galactose, a substrate for the galactose-transport system of *Escherichia coli* (Henderson, P. J. F. & Giddens, R. A.) 15–22
3-Deoxy-2-oxo-D-gluconate, evidence for an electrogenic co-transport of protons and, driven by the protonmotive force in *Escherichia coli* K12 (Lagarde, A.) 211–221
Development, foetal, late, regulation by glucocorticoids of the induction of the activity of uridine diphosphate glucuronosyltransferase in rat liver during (Wishart, G. J. & Dutton, G. J.) 507–511
Development, postnatal, age-dependent inhibition by adenosine 3′:5′-cyclic monophosphate of the biosynthesis of protein in rat liver during (Klaipongpan, A., Bloxham, D. P. & Akhtar, M.) 271–275
Development, postnatal, differentiation and growth of heart cells in the rat during (Claycomb, W. C.) 599–601
Diabetes, streptozotocin-induced, chronic, effects of, on the activities of enzymes involved in the biosynthesis of glycerolipids in rat liver (Whiting, P. H., Bowley, M., Sturton, R. G., Pritchard, P. H., Brindley, D. N. & Hawthorne, J. N.) 147–153
Diabetes, streptozotocin-induced, effects of, and of insulin supplementation on the metabolism of glycogen in rat liver (Khandelwal, R. L., Zinman, S. M. & Zebrowski, E. J.) 541–548
Diethylstilboestrol, biliary excretion of anionic conjugates of phenolphthalein and, in the guinea pig (Barford, P. A., Olavesen, A. H., Curtis, C. G. & Powell, G. M.) 373–377
Diets, protein-free and protein-containing, activity of ornithine decarboxylase and concentrations of polyamines in liver and kidney of rats on a cyclical regimen of (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56
3,3′-Dipropyloxacarbocyanine, effects of ionophores on the fluorescence of, in the presence of pigeon erythrocytes, erythrocyte 'ghosts' and liposomes (Kimmich, G. A., Philo, R. D. & Eddy, A. A.) 81–90

α-Ecdysone, properties of the system catalysing the 20-hydroxylation of, in the locust (Johnson, P. & Rees, H. H.) 513–520
Epididymis, rat, demonstration of the phosphorylation of acetyl-coenzyme A carboxylase within intact fat-cells from (Brownsey, R. W., Hughes, W. A., Denton, R. M. & Mayer, R. J.) 441–445
Erythrocyte 'ghosts', pigeon, effects of ionophores on the fluorescence of 3,3′-dipropyloxadicarbocyanine in the presence of, and erythrocytes and of liposomes (Kimmich, G. A., Philo, R. D. & Eddy, A. A.) 81–90
Erythrocytes, mouse, immunological evaluation of repeated administration of heterologous protein entrapped in, to the C3H/HeJ mouse (Fiddler, M. B., Hudson, L. D. S. & Desnick, R. J.) 141–145
Erythrocytes, pigeon, effects of ionophores on the fluorescence of 3,3′-dipropyloxadicarbocyanine in the presence of, and erythrocyte 'ghosts' and of liposomes (Kimmich, G. A., Philo, R. D. & Eddy, A. A.) 81–90
Erythrocytes, pigeon, intact and lysed, activity of covalently cross-linked cholera toxin with the adenylate cyclase of (van Heyningen, S.) 457–463
Erythrocytes, rabbit, effects of Methylene Blue on the concentrations of glutamate and reduced glutathione in (Smith, J. E., Mahaffey, E. & Lee, M.) 587–589
Erythrocytes, rat, transmembrane migration ('flip-flop') of cholesterol in membrane of (Kirby, C. J. & Green, C.) 575–577
Escherichia coli, 2-deoxy-D-galactose as a substrate for the galactose-transport system of (Henderson, P. J. F. & Giddens, R. A.) 15–22
Escherichia coli K12, evidence for an electrogenic co-transport of 3-deoxy-2-oxo-D-gluconate and protons driven by the protonmotive force in (Lagarde, A.) 211–221
Escherichia coli, transport of adenine, hypoxanthine and uracil into (Burton, K.) 195–204
Estrogens, *see* Oestrogens
Ethanolamine, effects of analogues of choline and, on the metabolism of phospholipids in isolated rat hepatocytes (Åkesson, B.) 401–408

Fat-cells, epididymal, rat, intact, demonstration of the phosphorylation of acetyl-coenzyme A carboxylase within (Brownsey, R. W., Hughes, W. A., Denton, R. M. & Mayer, R. J.) 441–445
Fatty acids, biosynthesis of, by pea-seed microsomal fraction during germination (Bolton, P. & Harwood, J. L.) 261–269
Ferredoxins, plant and algal, measurement of the mid-point redox potentials of (Cammack, R., Rao, K. K., Bargeron, C. P., Hutson, K. G., Andrew, P. W. & Rogers, L. J.) 205–209
Fibroblasts, rat-embryo, cultured, effects of inhibitors of microtubule function or of translation on the general degradation of cell proteins in (Amenta, J. S., Sargus, M. J. & Baccino, F. M.) 223–227
Fibroblasts, skin, human, cultured, biosynthesis and release of glycoproteins by (Sear, C. H. J., Grant, M. E. & Jackson, D. S.) 91–103
Fibroblasts, skin, rat, cultured, rapid isolation of plasma membranes in high yield from (Thom, D., Powell, A. J., Lloyd, C. W. & Rees, D. A.) 187–194
Fucose, incorporation of, into glycoproteins by cultured human skin fibroblasts (Sear, C. H. J., Grant, M. E. & Jackson, D. S.) 91–103

Galactose, 2-deoxy-D-galactose as a substrate for the transport system for, of *Escherichia coli* (Henderson, P. J. F. & Giddens, R. A.) 15–22
Gangliosides, separation of rat brain membranes with different ratios of ganglioside-sialylating activity to concentration of (Landa, C. A., Maccioni, H. J. F., Arce, A. & Caputto, R.) 325–332

Gap junctions, plasma-membrane, liver, mouse, preparation of, and identification of the constituent polypeptides (Culvenor, J. G. & Evans, W. H.) 475–481
Germination, biosynthesis of fatty acids by pea-seed microsomal fraction during (Bolton, P. & Harwood, J. L.) 261–269
Glucagon, effects of α-adrenergic agonists, theophylline, papaverine and, on gluconeogenesis in tubule fragments from kidney cortex of fed rats (MacDonald, D. W. R. & Saggerson, E. D.) 33–42
Glucocorticoids, regulation by, of the induction of the activity of uridine diphosphate glucuronosyltransferase in rat liver during late-foetal development (Wishart, G. J. & Dutton, G. J.) 507–511
Gluconeogenesis, effects of α-adrenergic agonists, glucagon, theophylline and papaverine on, in tubule fragments from kidney cortex of fed rats (MacDonald, D. W. R. & Saggerson, E. D.) 33–42
Glucose, ability of glycerol to mimic some of the effects of insulin on the metabolism of, in acinar cells isolated from lactating rat mammary gland (Robinson, A. M. & Williamson, D. H.) 465–474
Glucose, effect of tryptophan on the control of the concentration of, in rat plasma (Smith, S. A. & Pogson, C. I.) 495–506
Glucose, effects of α-adrenergic agonists, glucagon, theophylline and papaverine on the formation of, in tubule fragments from kidney cortex of fed rats (MacDonald, D. W. R. & Saggerson, E. D.) 33–42
D-Glucose, incorporation into liposomes of rat kidney brush-border membrane transport systems for L-alanine, inorganic phosphate and (Kinne, R. & Faust, R. G.) 311–314
Glucose, inhibition by oleate of glycogenolysis and the uptake of, by well-oxygenated perfused rat skeletal muscle (Rennie, M. J. & Holloszy, J. O.) 161–170
β-Glucuronidase, liver, ox, erythrocyte-entrapped, immunological evaluation of repeated administration of, to the C3H/HeJ mouse (Fiddler, M. B., Hudson, L. D. S. & Desnick, R. J.) 141–145
Glucuronidation, regulation by glucocorticoids of the induction of capacity for, in rat liver during late-foetal development (Wishart, G. J. & Dutton, G. J.) 507–511
Glucuronides, stimulation of the formation of, of steroids by uridine diphosphate *N*-acetylglucosamine and by disruption of guinea-pig microsomal fraction (Wilkinson, J. & Hallinan, T.) 125–127
Glutamate, effects of Methylene Blue on the concentrations of reduced glutathione and, in rabbit erythrocytes (Smith, J. E., Mahaffey, E. & Lee, M.) 587–589
Glutamate, pathway for the metabolism of, in rat brain mitochondria (Dennis, S. C. & Clark, J. B.) 521–527
Glutamine, pathway for the metabolism of glutamate and, in rat brain mitochondria (Dennis, S. C. & Clark, J. B.) 521–527
Glutathione, reduced, effects of Methylene Blue on the concentrations of glutamate and, in rabbit erythrocytes (Smith, J. E., Mahaffey, E. & Lee, M.) 587–589
Glycerol, ability of, to mimic some of the effects of insulin on the metabolism of glucose in acinar cells isolated from lactating rat mammary gland (Robinson, A. M. & Williamson, D. H.) 465–474
Glycerolipids, effects of chronic streptozotocin-induced diabetes on the activities of enzymes involved in the biosynthesis of, in rat liver (Whiting, P. H., Bowley, M., Sturton, R. G., Pritchard, P. H., Brindley, D. N. & Hawthorne, J. N.) 147–153
Glycogen, effects of streptozotocin-induced diabetes and of insulin supplementation on the metabolism of, in rat liver (Khandelwal, R. L., Zinman, S. M. & Zebrowski, E. J.) 541–548
Glycogenolysis, inhibition by oleate of the uptake of glucose and, by well-oxygenated perfused rat skeletal muscle (Rennie, M. J. & Holloszy, J. O.) 161–170
α_1-Glycoprotein, effects of hormones on the biosynthesis of plasma albumin and, in isolated rat hepatocytes (Jeejeebhoy, K. N., Ho, J., Mehra, R., Jeejeebhoy, J. & Bruce-Robertson, A.) 347–352
Glycoproteins, biosynthesis and release of, by cultured human skin fibroblasts (Sear, C. H. J., Grant, M. E. & Jackson, D. S.) 91–103
Gold, colloidal, pinocytosis of poly(vinylpyrrolidone), sucrose and, by cultured rat yolk sac *in vitro* (Roberts, A. V. S., Williams, K. E. & Lloyd, J. B.) 239–244
Gold, colloidal, quantitative study of pinocytosis of sucrose, poly(vinylpyrrolidone) and, and of intracellular proteolysis of pinocytosed albumin by rat peritoneal mononuclear leucocytes (Pratten, M. K., Williams, K. E. & Lloyd, J. B.) 365–372
Golgi apparatus, mammary-gland, rat, role of nucleoside diphosphatase in a uridine nucleotide cycle associated with the biosynthesis of lactose in (Kuhn, N. J. & White, A.) 423–433
Guanosine triphosphate, modulation by, of the response to corticotropin-(1–24)-tetracosapeptide of the activity of adenylate cyclase of ox adrenal-gland-cortex plasma membrane (Glynn, P., Cooper, D. M. F. & Schulster, D.) 277–282

Haem, accelerated catabolism of, in liver of selenium-deficient rats (Burk, R. F. & Correia, M. A.) 105–111
Haem, evidence for an abnormal pathway not involving production of carbon monoxide in the loss of, from cytochrome *P*-450 caused by lipid peroxidation and 2-allyl-2-isopropylacetamide in rat liver microsomal fraction (De Matteis, F., Gibbs, A. H. & Unseld, A.) 417–422
Heart cells, rat, differentiation and growth of, during postnatal development (Claycomb, W. C.) 599–601
Heart, mouse, perfused, evidence for phosphorylation of troponin I by adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in, from animals deficient in phosphorylase kinase (England, P. J.) 307–310
Heart muscle, rat, activity of carbonic anhydrase in, and skeletal muscle (Moynihan, J. B.) 567–569
Heart, ox, phosphorylation potential generated by respiring submitochondrial particles from (Ferguson, S. J. & Sorgato, M. C.) 299–303
Heart, rabbit, perfused, effects of noradrenaline on the behaviour of polyadenylate polymerase and ribonucleic acid polymerase, acetylation of histones and rate of synthesis of polyamines in (Casti, A., Corti, A., Reali, N., Mezzetti, G., Orlandini, G. & Caldarera, C. M.) 333–340

Heart, rabbit, perfused, effects of noradrenaline on the cytoplasmic processing of ribonucleic acid in, after treatment with reserpine (Corti, A., Casti, A., Mezzetti, G., Reali, N., Orlandini, G. & Caldarera, C. M.) 341–345
Heart, rat, role of a specific pool of choline in the biosynthesis of sphingomyelin in (Kiss, Z.) 387–391
Heart, rat, uptake and release of calcium ions by mitochondria from (Harris, E. J.) 447–456
Hepatectomy, partial, effects of, and other treatments on the metabolism of *S*-adenosylmethionine and the biosynthesis of polyamines in rat liver (Eloranta, T. O. & Raina, A. M.) 179–185
Hepatocytes, rat, binding, interiorization and degradation of cholesteryl ester-labelled chylomicron-remnant particles by, in monolayer culture (Florén, C.-H. & Nilsson, Å.) 483–494
Hepatocytes, rat, isolated, effects of analogues of ethanolamine and choline on the metabolism of phospholipids in (Åkesson, B.) 401–408
Hepatocytes, rat, isolated, effects of hormones on the biosynthesis of α_1-glycoprotein and plasma albumin in (Jeejeebhoy, K. N., Ho, J., Mehra, R., Jeejeebhoy, J. & Bruce-Robertson, A.) 347–352
β-Hexosaminidase, *see* *N*-Acetyl-β-hexosaminidase
Histamine, effect of removal by treatment with sodium glycocholate of calcium ion-activated adenosine triphosphatase from the surface of rat mast cells on the capacity for the release of, by the cells (Cooper, P. H. & Stanworth, D. R.) 583–585
Histones, effects of noradrenaline on the behaviour of polyadenylate polymerase and ribonucleic acid polymerase, rate of synthesis of polyamines and acetylation of, in perfused rabbit heart (Casti, A., Corti, A., Reali, N., Mezzetti, G., Orlandini, G. & Caldarera, C. M.) 333–340
Hormones, effects of, on the biosynthesis of α_1-glycoprotein and plasma albumin in isolated rat hepatocytes (Jeejeebhoy, K. N., Ho, J., Mehra, R., Jeejeebhoy, J. & Bruce-Robertson, A.) 347–352
Hydrocortisone, *see* Cortisol
Hydrogen ions, evidence for an electrogenic co-transport of 3-deoxy-2-oxo-D-gluconate and, driven by the protonmotive force in *Escherichia coli* K12 (Lagarde, A.) 211–221
3-Hydroxyretinol, occurrence of, in the freshwater fish *Bagarius bagarius* and *Wallago attu* (Barua, A. B., Das, R. C. & Verma, K.) 557–564
5-Hydroxytryptamine, evidence that the effect of tryptophan on the control of the concentration of glucose in rat plasma is mediated through the formation of (Smith, S. A. & Pogson, C. I.) 495–506
Hypoxanthine, transport of adenine, uracil and, into *Escherichia coli* (Burton, K.) 195–204

Inorganic phosphate, *see* Phosphate, inorganic
Inosine, species difference in the activity of nucleoside phosphorylase and the secretion of insulin stimulated by, by isolated rat and rabbit islets of Langerhans (Campbell, I. L. & Taylor, K. W.) 591–593
Insulin, ability of glycerol to mimic some of the effects of, on the metabolism of glucose in acinar cells isolated from lactating rat mammary gland (Robinson, A. M. & Williamson, D. H.) 465–474
Insulin, effects of streptozotocin-induced diabetes and of supplementation with, on the metabolism of glycogen in rat liver (Khandelwal, R. L., Zinman, S. M. & Zebrowski, E. J.) 541–548
Insulin, species difference in the activity of nucleoside phosphorylase and the inosine-stimulated secretion of, by isolated rat and rabbit islets of Langerhans (Campbell, I. L. & Taylor, K. W.) 591–593
Intestine, small, human, transport of amino acids by vesicles of brush-border membrane from (Lücke, H., Haase, W. & Murer, H.) 529–532
Ionophores, effects of, on the fluorescence of 3,3′-dipropyloxacarbocyanine in the presence of pigeon erythrocytes, erythrocyte 'ghosts' and liposomes (Kimmich, G. A., Philo, R. D. & Eddy, A. A.) 81–90
Ions, passive permeability to, of ox adrenal-gland-medulla chromaffin-granule membrane (Phillips, J. H.) 289–297
Islets of Langerhans, pancreatic, rat and rabbit, isolated, species difference in the activity of nucleoside phosphorylase and the inosine-stimulated secretion of insulin by (Campbell, I. L. & Taylor, K. W.) 591–593
3-Isopropylbut-3-enoate, identification of, as an intermediate in the metabolism of α-pinene by *Pseudomonas putida* (Tudroszen, N. J., Kelly, D. P. & Millis, N. F.) 315–318
Kidney cortex, rat, effects of α-adrenergic agonists, glucagon, theophylline and papaverine on gluconeogenesis in tubule fragments from, of fed animals (MacDonald, D. W. R. & Saggerson, E. D.) 33–42
Kidney, rat, activity of ornithine decarboxylase and concentrations of polyamines in, and liver of animals on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56
Kidney, rat, composition and concentrations of porphyrins and activity of porphyrinogen carboxy-lyase in, and other tissues in hexachlorobenzene-induced porphyria (San Martin de Viale, L. C., Rios de Molina, M. d. C., Wainstok de Calmanovici, R. & Tomio, J. M.) 393–400
Kidney, rat, incorporation into liposomes of transport systems for D-glucose, L-alanine and inorganic phosphate from brush-border membrane from (Kinne, R. & Faust, R. G.) 311–314

Lactate, inhibition by oleate of the uptake of glucose, glycogenolysis and the production of, by well-oxygenated perfused rat skeletal muscle (Rennie, M. J. & Holloszy, J. O.) 161–170
Lactation, ability of glycerol to mimic some of the effects of insulin on the metabolism of glucose in acinar cells isolated from rat mammary gland during (Robinson, A. M. & Williamson, D. H.) 465–474
Lactose, role of nucleoside diphosphatase in a uridine nucleotide cycle associated with the biosynthesis of, in rat mammary-gland Golgi apparatus (Kuhn, N. J. & White, A.) 423–433
Lecithin, *see* Phosphatidylcholine
Leucine, age-dependent inhibition by adenosine 3′:5′-cyclic monophosphate of the incorporation of, into protein in rat liver during postnatal development (Klaipongpan, A., Bloxham, D. P. & Akhtar, M.) 271–275

Leucocytes, mononuclear, peritoneal, rat, quantitative study of pinocytosis of colloidal gold, sucrose and poly(vinylpyrrolidone) and of intracellular proteolysis of pinocytosed albumin by (Pratten, M. K., Williams, K. E. & Lloyd, J. B.) 365–372

Leydig cells, testis, rat, effect of lutropin on the phosphorylation of endogenous proteins in, and correlation with the production of testosterone (Cooke, B. A., Lindh, M. L. & Janszen, F. H. A.) 43–48

Lipid peroxidation, evidence for an abnormal pathway not involving production of carbon monoxide in the loss of haem from cytochrome *P*-450 caused by 2-allyl-2-isopropylacetamide and, in rat liver microsomal fraction (De Matteis, F., Gibbs, A. H. & Unseld, A.) 417–422

Lipids, composition of, of skeletal-muscle sarcolemma isolated from normal and dystrophic mice (de Kretser, T. A. & Livett, B. G.) 229–237

Lipids, inhibition by human caeruloplasmin of the autoxidation of, in ox brain homogenate (Al-Timimi, D. J. & Dormandy, T. L.) 283–288

Liposomes, effects of ionophores on the fluorescence of 3,3′-dipropyloxadicarbocyanine in the presence of pigeon erythrocytes, erythrocyte 'ghosts' and (Kimmich, G. A., Philo, R. D. & Eddy, A. A.) 81–90

Liposomes, incorporation into, of rat kidney brush-border membrane transport systems for D-glucose, L-alanine and inorganic phosphate (Kinne, R. & Faust, R. G.) 311–314

Liver cells, rat, binding, interiorization and degradation of cholesteryl ester-labelled chylomicron-remnant particles by, in monolayer culture (Florén, C.-H. & Nilsson, Å.) 483–494

Liver cells, rat, isolated, effects of analogues of ethanolamine and choline on the metabolism of phospholipids in (Åkesson, B.) 401–408

Liver cells, rat, isolated, effects of hormones on the biosynthesis of α_1-glycoprotein and plasma albumin in (Jeejeebhoy, K. N., Ho, J., Mehra, R., Jeejeebhoy, J. & Bruce-Robertson, A.) 347–352

Liver, guinea-pig, stimulation of the glucuronidation of steroids by uridine diphosphate *N*-acetylglucosamine and by disruption of the microsomal fraction (Wilkinson, J. & Hallinan, T.) 125–127

Liver, hamster, requirement for phospholipid for the *N*- and ring-hydroxylation of 2-acetamidofluorene by microsomal cytochrome *P*-450 enzyme system from (Lotlikar, P. D., Dwyer, E. N., Baldy, W. J. & Nyce, J.) 571–574

Liver, mouse, preparation of gap junctions from plasma membrane from, and identification of the constituent polypeptides (Culvenor, J. G. & Evans, W. H.) 475–481

Liver, rat, accelerated catabolism of haem in, of selenium-deficient animals (Burk, R. F. & Correia, M. A.) 105–111

Liver, rat, activity of ornithine decarboxylase and concentrations of polyamines in, and kidney of animals on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56

Liver, rat, age-dependent inhibition by adenosine 3′:5′-cyclic monophosphate of the biosynthesis of protein in, during postnatal development (Klaipongpan, A., Bloxham, D. P. & Akhtar, M.) 271–275

Liver, rat, composition and concentrations of porphyrins and activity of porphyrinogen carboxy-lyase in, and other tissues in hexachlorobenzene-induced porphyria (San Martin de Viale, L. C., Rios de Molina, M. d. C., Wainstok de Calmanovici, R. & Tomio, J. M.) 393–400

Liver, rat, differences in size, structure and function of free and membrane-bound polyribosomes of (Ramsey, J. C. & Steele, W. J.) 1–8

Liver, rat, effects of chronic streptozotocin-induced diabetes on the activities of enzymes involved in the biosynthesis of glycerolipids in (Whiting, P. H., Bowley, M., Sturton. R. G., Pritchard, P. H., Brindley, D. N. & Hawthorne, J. N.) 147–153

Liver, rat, effects of nutritional state, adrenal-gland function, administration of some drugs and partial hepatectomy on the metabolism of *S*-adenosylmethionine and the biosynthesis of polyamines in (Eloranta, T. O. & Raina, A. M.) 179–185

Liver, rat, effects of streptozotocin-induced diabetes and of insulin supplementation on the metabolism of glycogen in (Khandelwal, R. L., Zinman, S. M. & Zebrowski, E. J.) 541–548

Liver, rat, energy-dependent uptake of arsenite by mitochondria from (Harris, E. J. & Achenjang, F. M.) 129–132

Liver, rat, evidence for an abnormal pathway not involving production of carbon monoxide in the loss of haem from cytochrome *P*-450 caused by lipid peroxidation and 2-allyl-2-isopropylacetamide in microsomal fraction from (De Matteis, F., Gibbs., A. H. & Unseld, A.) 417–422

Liver, rat, further characterization of ribosomal subunits and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of ribonucleoprotein particles from mitochondrial and cytoplasmic ribosomes from, and other mammalian tissues (Sacchi, A., Ferrini, U., Londei, P., Cammarano, P. & Maraldi, N.) 245–259

Liver, rat, halide-dependent and halide-independent effects of triorganotin and triorganolead compounds on oxidative phosphorylation and other functions of mitochondria from (Aldridge, W. N., Street, B. W. & Skilleter, D. N.) 353–364

Liver, rat, regulation by glucocorticoids of the induction of the activity of uridine diphosphate glucuronosyltransferase in, during late-foetal development (Wishart, G. J. & Dutton, G. J.) 507–511

Liver, rat, relationship between the reduction of oxygen, artificial acceptors and cytochrome *P*-450 by microsomal reduced nicotinamide–adenine dinucleotide phosphate–cytochrome *c* reductase from (Lyakhovich, V., Mishin, V. & Pokrovsky, A.) 133–139

Liver, rat, stimulation of the biosynthesis of ribonucleic acid in, *in vivo* after the administration of non-lethal doses of cycloheximide (Ch'ih, J. J., Pike, L. M. & Devlin, T. M.) 57–63

Locust (*Schistocerca gregaria*), properties of the system catalysing the 20-hydroxylation of α-ecdysone in (Johnson, P. & Rees, H. H.) 513–520

Lung, mouse, activities of adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in cytosol of, and urethane-induced mouse lung tumours (Malkinson, A. M., Gunderson, T. J. & McSwigan, C. E.) 319–321

Lung tumours, mouse, urethane-induced, activities of adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in cytosol of, and normal mouse lung (Malkinson, A. M., Gunderson, T. J. & McSwigan, C. E.) 319–321
Luteinizing hormone, *see* Lutropin
Lutropin, effect of, on the phosphorylation of endogenous proteins in rat testis Leydig cells and correlation with the production of testosterone (Cooke, B. A., Lindh, M. L. & Janszen, F. H. A.) 43–48
Lymphoblastoid cells, human, comparison of the effects of prednisolone and methylprednisolone on (Waddell, A. W. & Currie, A. R.) 323–324
Lysosomes, hypothesis for the recycling of membranes of (Dean, R. T.) 603–605

Macrophages, *see* Leucocytes, mononuclear
Magnesium ions, effect of, on the uptake and release of calcium ions by rat heart mitochondria (Harris, E. J.) 447–456
Mammary gland, rat, lactating, ability of glycerol to mimic some of the effects of insulin on the metabolism of glucose in acinar cells isolated from (Robinson, A. M. & Williamson, D. H.) 465–474
Mammary gland, rat, role of nucleoside diphosphatase in a uridine nucleotide cycle associated with the biosynthesis of lactose in Golgi apparatus of (Kuhn, N. J. & White, A.) 423–433
Mast cells, rat, effect of removal by treatment with sodium glycocholate of calcium ion-activated adenosine triphosphatase from the surface of (Cooper, P. H. & Stanworth, D. R.) 583–585
Membrane, brush-border, kidney, rat, incorporation into liposomes of transport systems for D-glucose, L-alanine and inorganic phosphate from (Kinne, R. & Faust, R. G.) 311–314
Membrane, brush-border, small-intestinal, human, transport of amino acids by vesicles of (Lücke, H., Haase, W. & Murer, H.) 529–532
Membrane, chromaffin-granule, adrenal-gland-medulla, ox, passive permeability to anions of (Phillips, J. H.) 289–297
Membrane, erythrocyte, rat, transmembrane migration ('flip-flop') of cholesterol in (Kirby, C. J. & Green, C.) 575–577
Membrane, plasma, adrenal-gland-cortex, ox, modulation of the response to corticotropin-(1–24)-tetracosapeptide of the activity of adenylate cyclase of (Glynn, P., Cooper, D. M. F. & Schulster, D.) 277–282
Membrane, plasma, liver, mouse, preparation of gap junctions from, and identification of the constituent polypeptides (Culvenor, J. G. & Evans, W. H.) 475–481
Membranes, brain, rat, separation of, with different ratios of ganglioside-sialylating activity to ganglioside concentration (Landa, C. A., Maccioni, H. J. F., Arce, A. & Caputto, R.) 325–332
Membranes, liver, rat, differences in size, structure and function of free polyribosomes and those bound to (Ramsey, J. C. & Steele, W. J.) 1–8
Membranes, lysosomal, hypothesis for the recycling of (Dean, R. T.) 603–605
Membranes, plasma, rapid isolation of, in high yield from cultured rat skin fibroblasts (Thom, D., Powell, A. J., Lloyd, C. W. & Rees, D. A.) 187–194
Methylene Blue, effects of, on the concentrations of glutamate and reduced glutathione in rabbit erythrocytes (Smith, J. E., Mahaffey, E. & Lee, M.) 587–589
(*Z*)-2-Methyl-5-isopropylhexa-2,5-dienoate, identification of, as an intermediate in the metabolism of α-pinene by *Pseudomonas putida* (Tudroszen, N. J., Kelly, D. P. & Millis, N. F.) 315–318
Methylomonas P11, characterization of the respiratory chain of (Drabikowska, A. K.) 171–178
Methylprednisolone, comparison of the effects of prednisolone and, on human lymphoblastoid cells (Waddell, A. W. & Currie, A. R.) 323–324
4-Methylumbelliferyl β-D-xyloside, mode of action of, on the biosynthesis of chondroitin sulphate in chick-embryo sternum (Gibson, K. D. & Segen, B. J.) 65–79
Microsomal fraction, liver, guinea-pig, stimulation of the glucuronidation of steroids by uridine diphosphate *N*-acetylglucosamine and by disruption of (Wilkinson, J. & Hallinan, T.) 125–127
Microsomal fraction, liver, hamster, requirement for phospholipid for the *N*- and ring-hydroxylation of 2-acetamidofluorene by cytochrome *P*-450 enzyme system from (Lotlikar, P. D., Dwyer, E. N., Baldy, W. J. & Nyce, J.) 571–574
Microsomal fraction, liver, rat, decreased concentration of cytochrome *P*-450 in, of selenium-deficient animals (Burk, R. F. & Correia, M. A.) 105–111
Microsomal fraction, liver, rat, evidence for an abnormal pathway not involving production of carbon monoxide in the loss of haem from cytochrome *P*-450 caused by lipid peroxidation and 2-allyl-2-isopropylacetamide in (De Matteis, F., Gibbs, A. H. & Unseld, A.) 417–422
Microsomal fraction, liver, rat, relationship between the reduction of oxygen, artificial acceptors and cytochrome *P*-450 by reduced nicotinamide–adenine dinucleotide phosphate–cytochrome *c* reductase from (Lyakhovich, V., Mishin, V. & Pokrovsky, A.) 133–139
Microsomal fraction, pea-seed, biosynthesis of fatty acids by, during germination (Bolton, P. & Harwood, J. L.) 261–269
Microtubule proteins, brain, pig, general properties and partial characterization of, and their phosphorylation by adenosine 3′:5′-cyclic monophosphate-dependent protein kinase (Sheterline, P.) 533–539
Microtubules, effects of inhibitors of translation or of the function of, on the general degradation of cell proteins in cultured rat-embryo fibroblasts (Amenta, J. S., Sargus, M. J. & Baccino, F. M.) 223–227
Mitochondria, *Acanthamoeba castellanii*, physicochemical properties of cytochromes of (Edwards, S. W., Chagla, A. H., Griffiths, A. J. & Lloyd, D.) 113–121
Mitochondria, brain, rat, pathway for the metabolism of glutamate in (Dennis, S. C. & Clark, J. B.) 521–527
Mitochondria, heart, ox, phosphorylation potential generated by respiring submitochondrial particles from (Ferguson, S. J. & Sorgato, M. C.) 299–303
Mitochondria, heart, rat, uptake and release of calcium ions by (Harris, E. J.) 447–456

Mitochondria, liver, rat, energy-dependent uptake of arsenite by (Harris, E. J. & Achenjang, F. M.) 129–132

Mitochondria, liver, rat, further characterization of ribosomal subunits and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of ribonucleoprotein particles from ribosomes of, and cytoplasm (Sacchi, A., Ferrini, U., Londei, P., Cammarano, P. & Maraldi, N.) 245–259

Mitochondria, liver, rat, halide-dependent and halide-independent effects of triorganotin and triorganolead compounds on oxidative phosphorylation and other functions of (Aldridge, W. N., Street, B. W. & Skilleter, D. N.) 353–364

Mixed-function oxidase, *see* Oxidase, mixed-function

Muscle, heart, rat, activity of carbonic anhydrase in, and skeletal muscle (Moynihan, J. B.) 567–569

Muscle, skeletal, mouse, isolation, characterization and lipid composition of sarcolemma from, from normal and dystrophic animals (de Kretser, T. A. & Livett, B. G.) 229–237

Muscle, skeletal, rat, activity of carbonic anhydrase in, and heart muscle (Moynihan, J. B.) 567–569

Muscle, skeletal, rat, perfused, well-oxygenated, inhibition by oleate of the uptake of glucose and glycogenolysis by (Rennie, M. J. & Holloszy, J. O.) 161–170

Muscular dystrophy, isolation, characterization and lipid composition of skeletal-muscle sarcolemma from normal mice and from mice with (de Kretser, T. A. & Livett, B. G.) 229–237

Nicotinamide–adenine dinucleotide phosphate (reduced)–cytochrome *c* reductase, microsomal, liver, rat, relationship between the reduction of oxygen, artificial acceptors and cytochrome *P*-450 by (Lyakhovich, V., Mishin, V. & Pokrovsky, A.) 133–139

Noradrenaline, effects of, on the behaviour of polyadenylate polymerase and ribonucleic acid polymerase, acetylation of histones and rate of synthesis of polyamines in perfused rabbit heart (Casti, A., Corti, A., Reali, N., Mezzetti, G., Orlandini, G. & Caldarera, C. M.) 333–340

Noradrenaline, effects of, on the cytoplasmic processing of ribonucleic acid in perfused rabbit heart after treatment with reserpine (Corti, A., Casti, A., Mezzetti, G., Reali, N., Orlandini, G. & Caldarera, C. M.) 341–345

Nucleoside diphosphatase, role of, in a uridine nucleotide cycle associated with the biosynthesis of lactose in rat mammary-gland Golgi apparatus (Kuhn, N. J. & White, A.) 423–433

Nucleoside phosphorylase, species difference in the activity of, and the inosine-stimulated secretion of insulin by isolated rat and rabbit pancreatic islets of Langerhans (Campbell, I. L. & Taylor, K. W.) 591–593

Nucleoside phosphorylases, role of phosphoribosyltransferases and, in the transport of adenine, hypoxanthine and uracil into *Escherichia coli* (Burton, K.) 195–204

Octadecasilyl-silica, use of, for the extraction and purification of peptides in biological samples and its application to the identification of metabolites of corticotropin-(1–24)-tetracosapeptide and somatostatin in rat blood *in vivo* (Bennett, H. P. J., Hudson, A. M., McMartin, C. & Purdon, G. E.) 9–13

Oestrogens, stimulation of the glucuronidation of, by uridine diphosphate *N*-acetylglucosamine and by disruption of guinea-pig microsomal fractions (Wilkinson, J. & Hallinan, T.) 125–127

Ornithine decarboxylase, activity of, and concentrations of polyamines in liver and kidney of rats on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56

L-Ornithine decarboxylase, regulation of the activities of *S*-adenosyl-L-methionine decarboxylase and, in rat ventral prostate gland and seminal vesicle (Piik, K., Rajamäki, P., Guha, S. K. & Jänne, J.) 379–385

Orotate, stimulation of the incorporation of, into ribonucleic acid in rat liver *in vivo* after the administration of non-lethal doses of cycloheximide (Ch'ih, J. J., Pike, L. M. & Devlin, T. M.) 57–63

Oxidase, mixed-function, properties of, catalysing the 20-hydroxylation of α-ecdysone in the locust (Johnson, P. & Rees, H. H.) 513–520

Oxidative phosphorylation, *see* Phosphorylation, oxidative

Oxygen, relationship between the reduction of artificial acceptors, cytochrome *P*-450 and, by rat liver microsomal reduced nicotinamide–adenine dinucleotide phosphate–cytochrome *c* reductase (Lyakhovich, V., Mishin, V. & Pokrovsky, A.) 133–139

Pancreas, rat and rabbit, species difference in the activity of nucleoside phosphorylase and the inosine-stimulated secretion of insulin by islets of Langerhans isolated from (Campbell, I. L. & Taylor, K. W.) 591–593

Papaverine, effects of α-adrenergic agonists, glucagon, theophylline, papaverine and, on gluconeogenesis in tubule fragments from kidney cortex of fed rats (MacDonald, D. W. R. & Saggerson, E. D.) 33–42

Pea (*Pisum sativum*) seeds, germinating, biosynthesis of fatty acids by microsomal fraction from (Bolton, P. & Harwood, J. L.) 261–269

Peptides, use of octadecasilyl-silica for the extraction and purification of, in biological samples and its application to the identification of metabolites of corticotropin-(1–24)-tetracosapeptide and somatostatin in rat blood *in vivo* (Bennett, H. P. J., Hudson, A. M., McMartin, C. & Purdon, G. E.) 9–13

Phenolphthalein, biliary excretion of anionic conjugates of diethylstilboestrol and, in the guinea pig (Barford, P. A., Olavesen, A. H., Curtis, C. G. & Powell, G. M.) 373–377

Phenylalanine, transport of alanine and, by vesicles of human small-intestinal brush-border membrane (Lücke, H., Haase, W. & Murer, H.) 529–532

Phosphate, inorganic, incorporation into liposomes of rat kidney brush-border membrane transport systems for D-glucose, L-alanine and (Kinne, R. & Faust, R. G.) 311–314

Phosphatidate, kinetics of the muscarinic effect on the metabolism of phosphatidylinositol and, in rat brain synaptosomes (Miller, J. C.) 549–555

Phosphatidate phosphatase, effects of chronic streptozotocin-induced diabetes on the activities of, and other enzymes involved in the biosynthesis of glycerolipids in rat liver (Whiting, P. H., Bowley, M., Sturton, R. G., Pritchard, P. H., Brindley, D. N. & Hawthorne, J. N.) 147–153

Phosphatidylcholine, effects of analogues of ethanolamine and choline on the metabolism of phosphatidylethanolamine and, in isolated rat hepatocytes (Åkesson, B.) 401–408

Phosphatidylcholine, iodinated, iodination of thyroid proteins during incubation of, with dog thyroid-gland slices (Rabinowitz, J. L. & Tavares, C. J.) 155–160

Phosphatidylethanolamine, effects of analogues of choline and ethanolamine on the metabolism of phosphatidylcholine and, in isolated rat hepatocytes (Åkesson, B.) 401–408

Phosphatidylinositol, effects of chronic streptozotocin-induced diabetes on the activities of enzymes involved in the biosynthesis of, and other glycerolipids in rat liver (Whiting, P. H., Bowley, M., Sturton, R. G., Pritchard, P. H., Brindley, D. N. & Hawthorne, J. N.) 147–153

Phosphatidylinositol, kinetics of the muscarinic effect on the metabolism of phosphatidate and, in rat brain synaptosomes (Miller, J. C.) 549–555

Phospholipid, requirement for, for the *N*- and ring-hydroxylation of 2-acetamidofluorene by hamster liver microsomal cytochrome *P*-450 enzyme system (Lotlikar, P. D., Dwyer, E. N., Baldy, W. J. & Nyce, J.) 571–574

Phospholipids, effects of analogues of ethanolamine and choline on the metabolism of, in isolated rat hepatocytes (Åkesson, B.) 401–408

Phospholipids, iodinated, iodination of thyroid proteins during incubation of, with dog thyroid-gland slices (Rabinowitz, J. L. & Tavares, C. J.) 155–160

Phosphoribosyltransferases, role of nucleoside phosphorylases and, in the transport of adenine, hypoxanthine and uracil into *Escherichia coli* (Burton, K.) 195–204

Phosphorylase kinase, evidence for phosphorylation of troponin I by adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in perfused heart from mice deficient in (England, P. J.) 307–310

Phosphorylation, oxidative, halide-dependent and halide-independent effects of triorganotin and triorganolead compounds on, and other functions of rat liver mitochondria (Aldridge, W. N., Street, B. W. & Skilleter, D. N.) 353–364

Phosphorylation potential, generation of, by respiring ox heart submitochondrial particles (Ferguson, S. J. & Sorgato, M. C.) 299–303

Pigeon, activity of covalently cross-linked cholera toxin with the adenylate cyclase of intact and lysed erythrocytes from (van Heyningen, S.) 457–463

Pigeon, effects of ionophores on the fluorescence of 3,3′-dipropyloxadicarbocyanine in the presence of erythrocytes and erythrocyte 'ghosts' from, and liposomes (Kimmich, G. A., Philo, R. D. & Eddy, A. A.) 81–90

α-Pinene, metabolism of, by *Pseudomonas putida* (Tudroszen, N. J., Kelly, D. P. & Millis, N. F.) 315–318

Pinocytosis, measurement of, of poly(vinylpyrrolidone), sucrose and colloidal gold by cultured rat yolk sac *in vitro* (Roberts, A. V. S., Williams, K. E. & Lloyd, J. B.) 239–244

Pinocytosis, quantitative study of, of colloidal gold, sucrose and poly(vinylpyrrolidone) and of intracellular proteolysis of pinocytosed albumin by rat peritoneal mononuclear leucocytes (Pratten, M. K., Williams, K. E. & Lloyd, J. B.) 365–372

Pisum sativum, *see* Pea

Plasma albumin, *see* Albumin, plasma

Plasma membrane, *see* Membrane, plasma

Plasma, rat, effect of tryptophan on the control of the concentration of glucose in (Smith, S. A. & Pogson, C. I.) 495–506

Polyadenylate polymerase, effects of noradrenaline on the acetylation of histones, rate of synthesis of polyamines and behaviour of ribonucleic acid polymerase and, in perfused rabbit heart (Casti, A., Corti, A., Reali, N., Mezzetti, G., Orlandini, G. & Caldarera, C. M.) 333–340

Polyamines, activity of ornithine decarboxylase and concentrations of, in liver and kidneys of rats on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56

Polyamines, effects of noradrenaline on the behaviour of polyadenylate polymerase and ribonucleic acid polymerase, acetylation of histones and rate of synthesis of, in perfused rabbit heart (Casti, A., Corti, A., Reali, N., Mezzetti, G., Orlandini, G. & Caldarera, C. M.) 333–340

Polyamines, effects of noradrenaline on the cytoplasmic processing of ribonucleic acid and the synthesis of, in perfused rabbit heart after treatment with reserpine (Corti, A., Casti, A., Mezzetti, G., Reali, N., Orlandini, G. & Caldarera, C. M.) 341–345

Polyamines, effects of nutritional state, adrenal-gland function, administration of some drugs and partial hepatectomy on the metabolism of *S*-adenosylmethionine and the biosynthesis of, in rat liver (Eloranta, T. O. & Raina, A. M.) 179–185

Polyamines, regulation of the activities of L-ornithine decarboxylase and *S*-adenosyl-L-methionine decarboxylase involved in the biosynthesis of, in rat ventral prostate gland and seminal vesicle (Piik, K., Rajamäki, P., Guha, S. K. & Jänne, J.) 379–385

Polypeptides, identification of, of mouse liver plasma-membrane gap junctions (Culvenor, J. G. & Evans, W. H.) 475–481

Polyribosomes, liver, rat, free and membrane-bound, differences in size, structure and function of (Ramsey, J. C. & Steele, W. J.) 1–8

Polysomes, *see* Polyribosomes

Poly(vinylpyrrolidone), pinocytosis of sucrose, colloidal gold and, by cultured rat yolk sac *in vitro* (Roberts, A. V. S., Williams, K. E. & Lloyd, J. B.) 239–244

Poly(vinylpyrrolidone), quantitative study of pinocytosis of colloidal gold, sucrose and, and of intracellular proteolysis of pinocytosed albumin by rat peritoneal mononuclear leucocytes (Pratten, M. K., Williams, K. E. & Lloyd, J. B.) 365–372

Porphyria, hexachlorobenzene-induced, composition and concentrations of porphyrins and activity of porphyrinogen carboxy-lyase in various rat tissues in (San Martin de Viale, L. C., Rios de Molina, M. d. C., Wainstok de Calmanovici, R. & Tomio, J. M.) 393–400

Porphyrinogen carboxy-lyase, composition and concentrations of porphyrins and activity of, in various rat tissues in hexachlorobenzene-induced porphyria (San Martin de Viale, L. C., Rios de Molina, M. d. C., Wainstok de Calmanovici, R. & Tomio, J. M.) 393–400

Porphyrins, activity of porphyrinogen carboxy-lyase and composition and concentrations of, in various rat tissues in hexachlorobenzene-induced porphyria (San Martin de Viale, L. C., Rios de Molina, M. d. C., Wainstok de Calmanovici, R. & Tomio, J. M.) 393–400

Prednisolone, comparison of the effects of methylprednisolone and, on human lymphoblastoid cells (Waddell, A. W. & Currie, A. R.) 323–324

Prostate gland, ventral, rat, regulation of the activities of L-ornithine decarboxylase and *S*-adenosyl-L-methionine decarboxylase in, and seminal vesicle (Piik, K., Rajamäki, P., Guha, S. K. & Jänne, J.) 379–385

Protein, activity of ornithine decarboxylase and concentrations of polyamines in liver and kidney of rats on a cyclical regimen of diets free of and containing (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56

Protein, age-dependent inhibition by adenosine 3′:5′-cyclic monophosphate of the biosynthesis of, in rat liver during postnatal development (Klaipongpan, A., Bloxham, D. P. & Akhtar, M.) 271–275

Protein, heterologous, erythrocyte-entrapped, immunological evaluation of repeated administration of, to the C3H/HeJ mouse (Fiddler, M. B., Hudson, L. D. S. & Desnick, R. J.) 141–145

Protein kinase, adenosine 3′:5′-cyclic monophosphate-dependent, activities of, in cytosol of normal mouse lung and of urethane-induced mouse lung tumours (Malkinson, A. M., Gunderson, T. J. & McSwigan, C. E.) 319–321

Protein kinase, adenosine 3′:5′-cyclic monophosphate-dependent, evidence for phosphorylation of troponin I by, in perfused heart from mice deficient in phosphorylase kinase (England, P. J.) 307–310

Protein kinase, adenosine 3′:5′-cyclic monophosphate-dependent, phosphorylation by, of pig brain microtubule proteins (Sheterline, P.) 533–539

Protein kinases, effect of lutropin on the activity of, in rat testis Leydig cells and correlation with the production of testosterone (Cooke, B. A., Lindh, M. L. & Janszen, F. H. A.) 43–48

Proteins, cell, effects of inhibitors of microtubule function or of translation on the general degradation of, in cultured rat-embryo fibroblasts (Amenta, J. S., Sargus, M. J. & Baccino, F. M.) 223–227

Proteins, endogenous, effect of lutropin on the phosphorylation of, in rat testis Leydig cells and correlation with the production of testosterone (Cooke, B. A., Lindh, M. L. & Janszen, F. H. A.) 43–48

Proteins, microtubule, brain, pig, general properties and partial characterization of, and their phosphorylation by adenosine 3′:5′-cyclic monophosphate-dependent protein kinase (Sheterline, P.) 533–539

Proteins, ribosomal, differences in, of free and membrane-bound rat liver polyribosomes (Ramsey, J. C. & Steele, W. J.) 1–8

Proteins, thyroid, iodination of, during incubation of iodinated phospholipids with dog thyroid-gland slices (Rabinowitz, J. L. & Tavares, C. J.) 155–160

Protons, evidence for an electrogenic co-transport of 3-deoxy-2-oxo-D-gluconate and, driven by the protonmotive force in *Escherichia coli* K12 (Lagarde, A.) 211–221

Pseudomonas putida, metabolism of α-pinene by (Tudroszen, N. J., Kelly, D. P. & Millis, N. F.) 315–318

Purines, thiol-containing, affinity chromatography of, and of ribonucleic acids containing incorporated 6-thioguanosine residues (Melvin, W. T. & Keir, H. M.) 595–597

Putrescine, activity of ornithine decarboxylase and concentrations of, and other polyamines in liver and kidney of rats on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56

Red blood cells, *see* Erythrocytes

Redox potentials, midpoint, measurement of, of plant and algal ferredoxins (Cammack, R., Rao, K. K., Bargeron, C. P., Hutson, K. G., Andrew, P. W. & Rogers, L. J.) 205–209

Reserpine, effects of noradrenaline on the cytoplasmic processing of ribonucleic acid in perfused rabbit heart after treatment with (Corti, A., Casti, A., Mezzetti, G., Reali, N., Orlandini, G. & Caldarera, C. M.) 341–345

Respiratory chain, characterization of, of *Methylomonas* P11 (Drabikowska, A. K.) 171–178

Ribonucleic acid, biosynthesis of, *in vitro* in primary spermatocytes isolated from rat testis (Grootegoed, J. A., Grollé-Hey, A. H., Rommerts, F. F. G. & van der Molen, H. J.) 23–31

Ribonucleic acid, effects of noradrenaline on the cytoplasmic processing of, in perfused rabbit heart after treatment with reserpine (Corti, A., Casti, A., Mezzetti, G., Reali, N., Orlandini, G. & Caldarera, C. M.) 341–345

Ribonucleic acid polymerase, effects of noradrenaline on the acetylation of histones, rate of synthesis of polyamines and behaviour of polyadenylate polymerase and, in perfused rabbit heart (Casti, A., Corti, A., Reali, N., Mezzetti, G., Orlandini, G. & Caldarera, C. M.) 333–340

Ribonucleic acid, stimulation of the biosynthesis of, in rat liver *in vivo* after the administration of non-lethal doses of cycloheximide (Ch'ih, J. J., Pike, L. M. & Devlin, T. M.) 57–63

Ribonucleic acids, affinity chromatography of, containing incorporated 6-thioguanosine residues (Melvin, W. T. & Keir, H. M.) 595–597

Ribonucleoprotein particles, further characterization of ribosomal subunits and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of, from mitochondrial and cytoplasmic ribosomes from rat liver and other mammalian tissues (Sacchi, A., Ferrini, U., Londei, P., Cammarano, P. & Maraldi, N.) 245–259
Ribosomal proteins, differences in, of free and membrane-bound rat liver polyribosomes (Ramsey, J. C. & Steele, W. J.) 1–8
Ribosomal subunits, further characterization of, and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of ribonucleoprotein particles from mitochondrial and cytoplasmic ribosomes from rat liver and other mammalian tissues (Sacchi, A., Ferrini, U., Londei, P., Cammarano, P. & Maraldi, N.) 245–259
Ribosomes, inactive, evidence for a high proportion of, in slow-growing yeast cells (Waldron, C., Jund, R. & Lacroute, F.) 409–415
Ribosomes, mitochondrial and cytoplasmic, liver, rat, further characterization of ribosomal subunits and validity of buoyant-density methods for determination of the chemical composition and partial specific volume of ribonucleoprotein particles from, and from those of other mammalian tissues (Sacchi, A., Ferrini, U., Londei, P., Cammarano, P. & Maraldi, N.) 245–259

Saccharomyces cerevisiae, evidence for a high proportion of inactive ribosomes in slow-growing cells of (Waldron, C., Jund, R. & Lacroute, F.) 409–415
Sarcolemma, skeletal-muscle, mouse, isolation, characterization and lipid composition of, from normal and dystrophic animals (de Kretser, T. A. & Livett, B. G.) 229–237
Schistocerca gregaria, *see* Locust
Selenium, accelerated catabolism of haem in the liver of rats deficient in (Burk, R. F. & Correia, M. A.) 105–111
Seminal vesicle, rat, regulation of the activities of L-ornithine decarboxylase and *S*-adenosyl-L-methionine decarboxylase in, and ventral prostate gland (Piik, K., Rajamäki, P., Guha, S. K. & Jänne, J.) 379–385
Serotonin, *see* 5-Hydroxytryptamine
Sialylation, effect of, on the clearance of infused human *N*-acetyl-β-hexosaminidases from rat blood (Bearpark, T. & Stirling, J. L.) 435–439
Sialylation, separation of rat brain membranes with different ratios of activity for, of gangliosides to concentration of gangliosides (Landa, C. A., Maccioni, H. J. F., Arce, A. & Caputto, R.) 325–332
Skeletal muscle, *see* Muscle, skeletal
Skin fibroblasts, human, cultured, biosynthesis and release of glycoproteins by (Sear, C. H. J., Grant, M. E. & Jackson, D. S.) 91–103
Skin fibroblasts, rat, cultured, rapid isolation of plasma membranes in high yield from (Thom, D., Powell, A. J., Lloyd, C. W. & Rees, D. A.) 187–194
Skin, rat, stability of collagen of, during recovery from under-nutrition (Etherington, D. J.) 579–581
Somatostatin, identification of metabolites of corticotropin-(1–24)-tetracosapeptide and, in rat blood *in vivo* (Bennett, H. P. J., Hudson, A. M., McMartin, C. & Purdon, G. E.) 9–13
Spermatocytes, primary, rat, isolated, biosynthesis of ribonucleic acid in, *in vitro*, (Grootegoed, J. A., Grollé-Hey, A. H., Rommerts, F. F. G. & van der Molen, H. J.) 23–31
Spermidine, activity of ornithine decarboxylase and concentrations of, and other polyamines in liver and kidney of rats on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56
Spermine, activity of ornithine decarboxylase and concentrations of, and other polyamines in liver and kidney of rats on a cyclical regimen of protein-free and protein-containing diets (Farwell, D. C., Miguez, J. B. & Herbst, E. J.) 49–56
Sphingomyelin, role of a specific pool of choline in the biosynthesis of, in rat heart (Kiss, Z.) 387–391
Small intestine, *see* Intestine, small
Starvation, effects of, and other treatments on the metabolism of *S*-adenosylmethionine and the biosynthesis of polyamines in rat liver (Eloranta, T. O. & Raina, A. M.) 179–185
Sternum, chick-embryo, mode of action of 4-methylumbelliferyl β-D-xyloside on the biosynthesis of chondroitin sulphate in (Gibson, K. D. & Segen, B. J.) 65–79
Steroids, stimulation of the glucuronidation of, by uridine diphosphate *N*-acetylglucosamine and by disruption of guinea-pig microsomal fraction (Wilkinson, J. & Hallinan, T.) 125–127
Streptozotocin-diabetes, *see* Diabetes, streptozotocin-induced
Submitochondrial particles, heart, ox, respiring, phosphorylation potential generated by (Ferguson, S. J. & Sorgato, M. C.) 299–303
Sucrose, pinocytosis of poly(vinylpyrrolidone), colloidal gold and, by cultured rat yolk sac *in vitro* (Roberts, A. V. S., Williams, K. E. & Lloyd, J. B.) 239–244
Sucrose, quantitative study of pinocytosis of colloidal gold, poly(vinylpyrrolidone) and, and of intracellular proteolysis of pinocytosed albumin by rat peritoneal mononuclear leucocytes (Pratten, M. K., Williams, K. E. & Lloyd, J. B.) 365–372
Sugars, evidence for an electrogenic co-transport of protons and, driven by the protonmotive force in *Escherichia coli* K12 (Lagarde, A.) 211–221
Supernatant fraction, *see* Cytosol
Synacthen, *see* Corticotropin-(1–24)-tetracosapeptide
Synaptosomes, brain, rat, kinetics of the muscarinic effect on the metabolism of phosphatidylinositol and phosphatidate in (Miller, J. C.) 549–555

Testis, rat, biosynthesis of ribonucleic acid *in vitro* in primary spermatocytes isolated from (Grootegoed, J. A., Grollé-Hey, A. H., Rommerts, F. F. G. & van der Molen, H. J.) 23–31
Testis, rat, effect of lutropin on the phosphorylation of endogenous proteins in Leydig cells from, and correlation with the production of testosterone (Cooke, B. A., Lindh, M. L. & Janszen, F. H. A.) 43–48

Testosterone, effect of lutropin on the phosphorylation of endogenous proteins in rat testis Leydig cells and correlation with the production of (Cooke, B. A., Lindh, M. L. & Janszen, F. H. A.) 43–48

Testosterone, role of, in the regulation of the activities of L-ornithine decarboxylase and *S*-adenosyl-L-methionine decarboxylase in rat ventral prostate gland and seminal vesicle (Piik, K., Rajämaki, P., Guha, S. K. & Jänne, J.) 379–385

Theophylline, effects of α-adrenergic agonists, glucagon, papaverine and, on gluconeogenesis in tubule fragments from kidney cortex of fed rats (MacDonald, D. W. R. & Saggerson, E. D.) 33–42

6-Thioguanosine residues, affinity chromatography of ribonucleic acids containing (Melvin, W. T. & Keir, H. M.) 595–597

Thyroid gland, dog, iodination of thyroid proteins during incubation of iodinated phospholipids with slices of (Rabinowitz, J. L. & Tavares, C. J.) 155–160

Translation, effects of inhibitors of microtubule function or of, on the general degradation of cell proteins in cultured rat-embryo fibroblasts (Amenta, J. S., Sargus, M. J. & Baccino, F. M.) 223–227

Triorganolead compounds, halide-dependent and halide-independent effects of triorganotin compounds and, on oxidative phosphorylation and other functions of rat liver mitochondria (Aldridge, W. N., Street, B. W. & Skilleter, D. N.) 353–364

Triorganotin compounds, halide-dependent and halide-independent effects of triorganolead compounds and, on oxidative phosphorylation and other functions of rat liver mitochondria (Aldridge, W. N., Street, B. W. & Skilleter, D. N.) 353–364

Troponin I, evidence for phosphorylation of, by adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in perfused heart from mice deficient in phosphorylase kinase (England, P. J.) 307–310

Tryptophan, effect of, on the control of the concentration of glucose in rat plasma (Smith, S. A. & Pogson, C. I.) 495–506

Tumours, lung, mouse, urethane-induced, activities of adenosine 3′:5′-cyclic monophosphate-dependent protein kinase in cytosol of, and normal mouse lung (Malkinson, A. M., Gunderson, T. J. & McSwigan, C. E.) 319–321

Uracil, transport of adenine, hypoxanthine and, into *Escherichia coli* (Burton, K.) 195–204

Uridine diphosphate *N*-acetylglucosamine, stimulation of the glucuronidation of steroids by disruption of guinea-pig liver microsomal fraction and by (Wilkinson, J. & Hallinan, T.) 125–127

Uridine disphosphate glucuronosyltransferase, regulation by glucocorticoids of the induction of the activity of, in rat liver during late-foetal development (Wishart, G. J. & Dutton, G. J.) 507–511

Uridine, incorporation of, into ribonucleic acid *in vitro* in primary spermatocytes isolated from rat testis (Grootegoed, J. A., Grollé-Hey, A. H., Rommerts, F. F. G. & van der Molen, H. J.) 23–31

Uridine nucleotide cycle, role of nucleoside diphosphatase in, associated with the biosynthesis of lactose in rat mammary-gland Golgi apparatus (Kuhn, N. J. & White, A.) 423–433

Wallago attu, occurrence of 3-hydroxyretinol in *Bagarius bagarius* and (Barua, A. B., Das, R. C. & Verma, K.) 557–564

Yeast (*Saccharomyces cerevisiae*), evidence for a high proportion of inactive ribosomes in slow-growing cells of (Waldron, C., Jund, R. & Lacroute, F.) 409–415

Yolk sac, rat, cultured, pinocytosis of poly(vinylpyrrolidone), sucrose and colloidal gold by, *in vitro* (Roberts, A. V. S., Williams, K. E. & Lloyd, J. B.) 239–244